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ABSTRACT

School boards across the nation faced with funding cutbacks have addressed the possibility of reducing or eliminating extracurricular activities from school curriculums. However, it would be a mistake to discontinue funding if extracurricular activities contribute significantly to academic achievement. This study attempted to determine if there was a relationship between academic success and participation in extracurricular activities. An analysis of American College Testing (ACT) Assessment reports (self-reported high school grades, ACT scores, and extracurricular activities) for incoming freshmen (N=1067) for the Fall 1984 semester at a small southwestern college were examined. A statistical analysis revealed a significant positive correlation between academic success and participation in extracurricular activities. However, analysis also revealed self-reporting of high school grades and extracurricular activities may have produced suspect results. Before funding is removed from high school extracurricular activities, more precise measures are needed. (Author/ABL)

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ACADEMIC SUCCESS AND PARTICIPATION IN HIGH SCHOOL EXTRACURRICULAR ACTIVITIES: IS THERE A RELATIONSHIP?

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Abstract

The primary objective of this study was to determine the relationship between academic success and participation in extracurricular activities. An analysis of ACT Assessment reports (self-reported high school grades, ACT scores, and extracurricular activities) for incoming freshmen (N=1067) for the Fall 1984 semester at a small southwestern college were examined. A statistical analysis revealed a significant positive correlation between academic success and participation in extracurricular activities ($r=.209$, $p<.01$).

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Academic success and participation in high school extracurricular activities: Is there a relationship

Many school boards across the nation, faced with cutbacks in funding, have had to address the possibility of reducing or eliminating extracurricular activities from school curriculums. It would be a mistake, however, if funding were discontinued for extracurricular activities if they actually contributed significantly to academic achievement. Therefore, the primary issue of concern addressed in this report is the relationship between academic success and participation in high school extracurricular activities as determined from ACT Assessment reports.

According to Frith and Clark (1984), Ballantine (1981), Hedgepeth (1981), Shaw (1981), and McBride (1980), there appears to be an overall positive relationship between grade point average (GPA) and participation in extracurricular activities. Hedgepeth (1981) also found that there appears to be a relationship between participation in extracurricular activities and "better school attendance, better self-concept, better feelings about school, and more commitment toward receiving a college education than the students who do not participate in school extracurricular activities".

Loy, McPherson, and Kenyon (1978) found in their studies that athletes demonstrated a higher level of academic performance than non-athletes. Possible reasons for higher academic performance include: "association with high achievement oriented peers; transfer of achievement value from sport to classroom environment; an increased self-esteem which creates a higher level

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of aspiration in other domains; pressure applied internally and externally to present a consistent image in all areas as a successful individual; and, more scholastic and career guidance from a significant adult" (Rehberg, 1969).

Frith and Clark (1984) addressed the issue of importance of basic skills and extracurricular activities. They felt that basic skills were more important but that extracurricular activities could be used as leverage to attain those skills, such as requiring students to maintain a "C" average or better in order to participate. Further, if a student is successful in something such as an extracurricular activity, the effects can be seen in other areas such as stimulating good work habits and a positive attitude toward school in general (Frith and Clark, 1984).

Another area of concern involves underachievers. McBride (1980) found that a small percentage of students dropped out of school when extracurricular activities were discontinued, some students chose to transfer to other schools offering activities, attitudes toward school declined, and, in general, academic performance declined when extracurricular activities were discontinued. Finally, McBride (1980) and Reiter (1982) reported that delinquent behavior appears to occur more frequently in the absence of extracurricular activities.

To conclude, it appears that discontinued extracurricular activities tends to have an overall negative effect on students. Further, "research indicates that students function best in most activities when they experience success at least 75% of the time" (Frith and Clark, 1984). Once again, success experienced in one area of endeavor tends to influence the degree of success in other areas of endeavor.

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Method

Participants

Participants for this study were incoming freshmen enrolled at a small southwestern college during the fall semester of 1984. Only those freshmen who completed their high school education in the State of Colorado and those having completed the ACT Assessment prior to enrollment were included in this study (N=1067).

Procedure

The data for this study was obtained from official ACT score report computer files for incoming freshmen during the fall 1984. Only the data for those freshmen who completed their high school education in the State of Colorado were used for this study. Also, individuals who had responses missing for any of the twelve variables under study were eliminated from the final data set. The twelve variables under study include: ACT English score; ACT Math score; ACT Social Studies score; ACT Natural Science score; ACT Composite score; self-reported English grade; self-reported Math grade; self-reported Social Studies grade; self-reported Natural Sciene grade; high school average; number of high school extracurricular activities; and, number of non-high school activities. A statistical analysis was then conducted to determine the Pearson Product-Moment correlation coefficients indicating the significance of the relationships between the twelve variables tested.

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Results

Table 1 contains the Pearson Product-Moment correlation coefficients obtained from the data analyzing the relationships between variables mentioned previously. Relative to ACT Assessment scores, there were

Table 1

Comparison of variables reflecting academic success

	2	3	4	5	6	7	8	9	10	11	12
1	*.597	*.679	*.612	*.826	*.430	*.315	*.385	*.321	*.482	**.065	.053
2		*.573	*.651	*.846	*.298	*.355	*.324	*.279	*.420	.023	.033
3			*.699	*.864	*.304	*.205	*.330	*.234	*.356	.029	.027
4				*.865	*.269	*.232	*.296	*.234	*.343	-.003	.009
5					*.374	*.323	*.389	*.308	*.464	.029	.033
6						*.353	*.512	*.419	*.752	*.205	*.187
7							*.365	*.412	*.724	**.072	**.063
8								*.441	*.769	*.175	*.138
9									*.754	*.183	*.136
10										*.209	*.172
11											*.749

*p<.01
**p<.05

1) ACT English
2) ACT Math
3) ACT Social Studies
4) ACT Natural Science
5) ACT Composite
6) H.S. English grade
7) H.S. Math grade
8) H.S. Social Studies grade
9) H.S. Natural Science grade
10) H.S. Average
11) H.S. Extracurricular Activities
12) Non-H.S. Activities

statistically significant correlations between individual ACT subject scores, between subject scores and composite scores, between ACT scores and self-reported high school grades, and between ACT scores and high school average ($p<.01$). There was also a statistically significant correlation between ACT English scores and high school extracurricular activities ($p<.05$).

Relative to self-reported high school grades, there were statistically significant correlations between individual grades, and between individual grades and high school average ($p<.01$). In addition to the correlations already mentioned between ACT scores and high school grades, there were also

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statistically significant correlations between all high school grades and both high school sponsored and non-high school sponsored extracurricular activities.

Of primary concern was the relationship between academic success and participation in extracurricular activities. There was a statistically significant relationship between high school average and both high school extracurricular activities and non-high school extracurricular activities ($p<.01$). It should also be noted that there was a statistically significant correlation between high school average and ACT composite scores ($p<.01$).

Finally, the means and ranges of selected variables are as follows:

ACT composite	mean=17.03, range=4 to 31
high school average	mean=2.81, range=.25 to 4
high school sponsored activites	mean=4.09, range=0 to 13
non-high school sponsored activities	mean=14.44, range=0 to 46

Discussion

The primary issue under consideration during this study was whether there was a significant positive correlation between academic success while in high school and participation in extracurricular activities. As reported previously there are significant positive correlations between extracurricular activities, both high school and out-of-class, and all self-reported high school grades. The most significant positive correlation was between high school average and high school extracurricular activities ($p<.01$). The coefficient of determination for this relationship (.044) indicates that 4.4% of the variation in variable #1 (high school average) is a function of variable #2 (high school extracurricular activities) or vice versa, and that 95% of the variation is left to chance. The significance of this relationship is apparently not as strong as indicated by the correlation coefficient and

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seems to be different then the results of research previously cited. It would appear that the reporting of ACT scores are accurate in that there are significant positive correlations among all ACT scores. Also, the coefficients of determination for ACT composite and individual scores are as follows: English - .682; Math - .716; Social Studies - .746; and, Natural Science - .748. This data appears to confirm the validity of ACT scores.

Relative to self-reported high school grades, it appears that there are significant positive correlations among all scores and high school average. The coefficients of determination for individual grades and high school average are as follows: English, .566; Math, .524; Social Studies, .591; and Natural Science, .569. It is apparent that the relationship among high school grades is not significant to the degree that ACT scores are. This may be due to the fact that ACT scores are determined by objective means whereas high school grades are self-reported. Also, on examination of the correlations between ACT composite scores and high school averages (r=.464), one finds a relatively low, though significant, correlation. Based on these findings, one might conclude that self-reported high school grades are suspect and that a more precise measure be obtained.

If high school grades are suspect, then the correlation between high school grades and extracurricular activities may also be suspect. It is conceivable that there may be higher correlations when using actual grades from high school transcripts. This would also allow for a more precise match between individual high school subject grades and ACT scores.

Another area of concern involves extracurricular activities. It appears that the reporting of extracurricular activities might be suspect. In particular, activities reported as high school related could also be checked

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off as out-of-class activities and lead to duplication. Also, the directions found in the ACT Assessment booklet concerning extracurricular activities is somewhat ambiguous. Respondents could also be reporting participation in activities over the course of one year or up to four years depending on their interpretation of the directions. This in turn could have a direct effect on the relationship between extracurricular activities, high school grades, and ACT scores.

The relationship between academic success and participation in extracurricular activities appears to be unclear. As mentioned previously, this could be due to self-reported grades, ambiguous questions concerning extracurricular activities, factors related to the specific sample, or other variables that were not investigated. Based solely on ACT scores, one would have to conclude that there is an extremely weak relationship between academic success and participation in extracurricular activities. Whether this is a function of ambiguously worded questions or a function of characteristics of the sample has not been determined.

Before funding is removed from high school extracurricular activities, more precise measures of academic success must be obtained as well as more precise reporting of extracurricular activities in order to determine the degree of relationship. This study has established that there exists a statistically significant correlation between academic success and participation in extracurricular activities, but more research is needed.

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